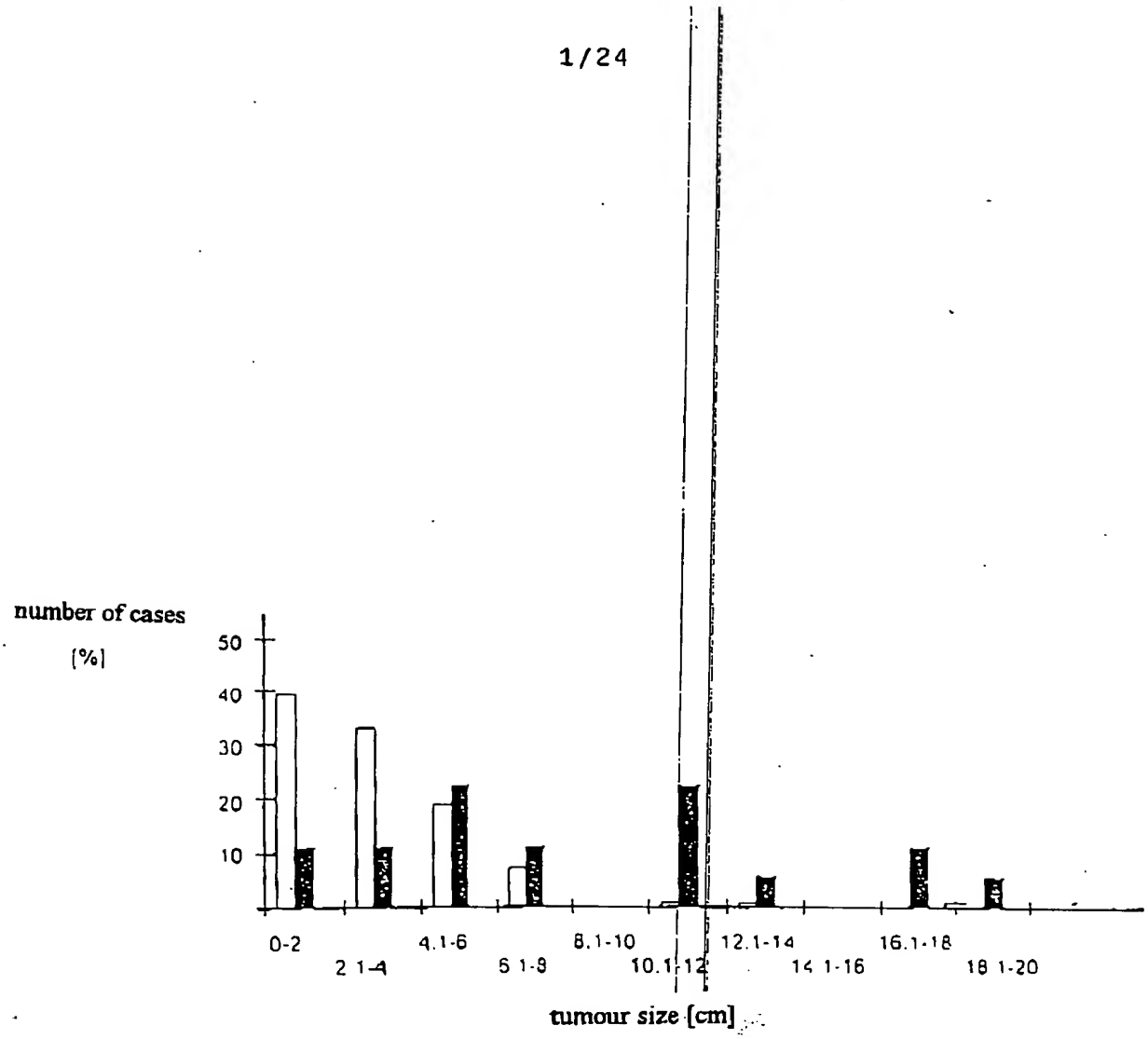
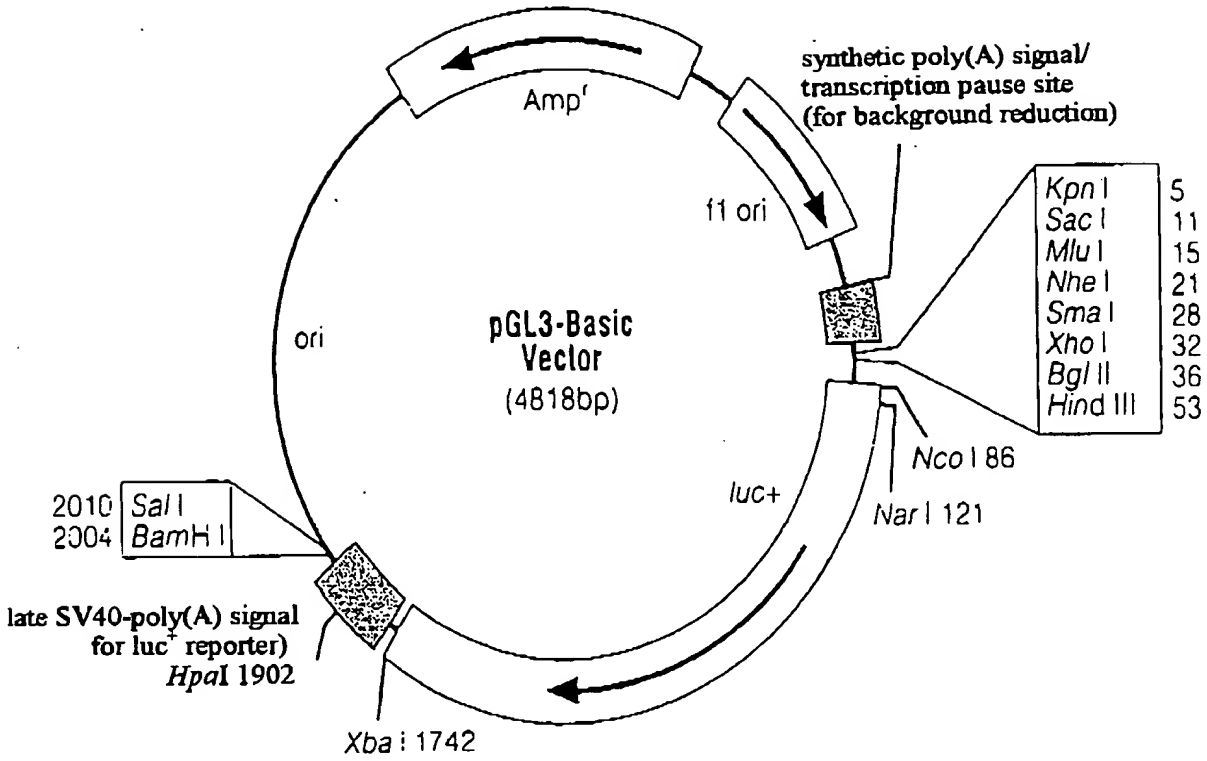
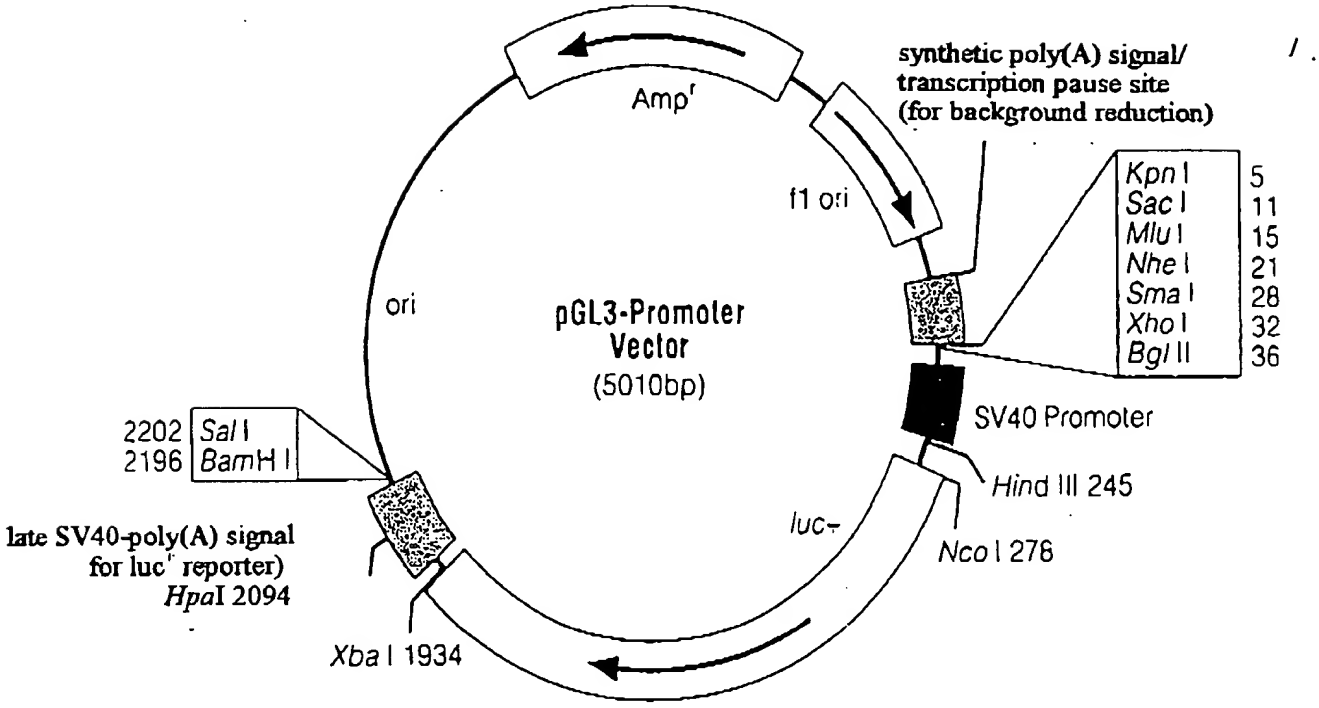


Fig. 1



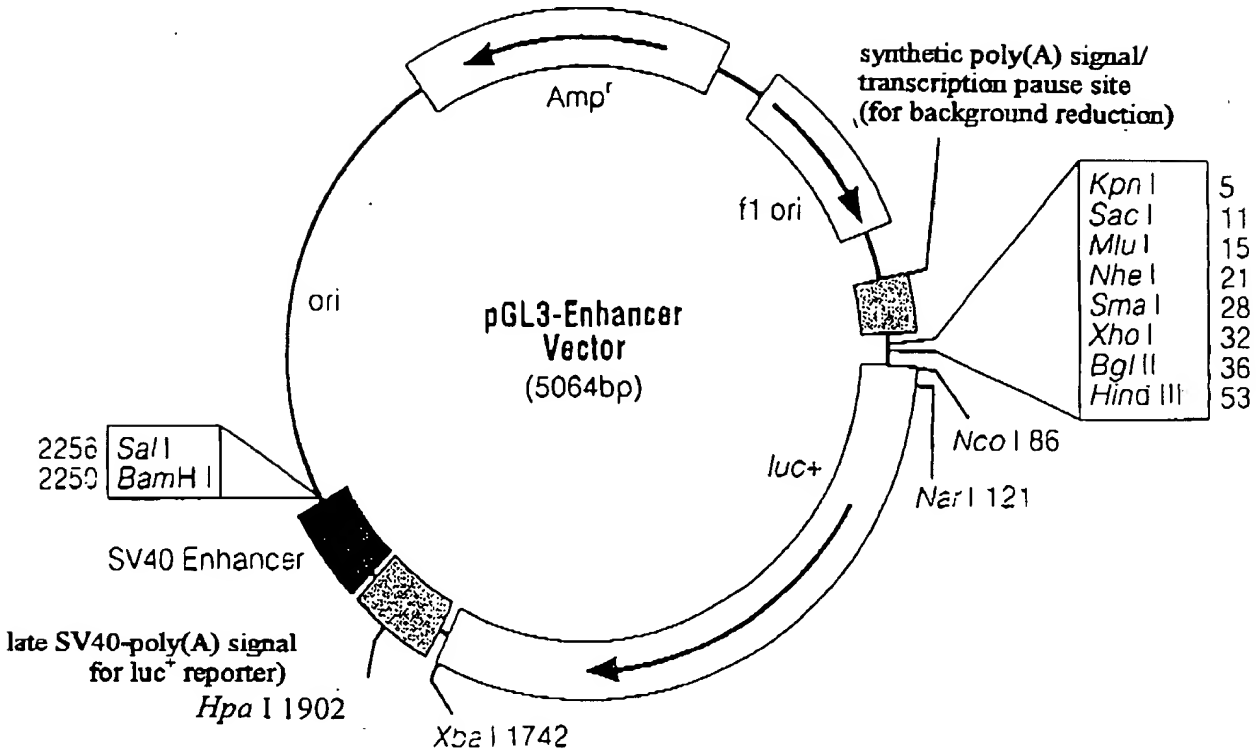
pGL3-Basic Vector map.

Fig. 2 - part 1



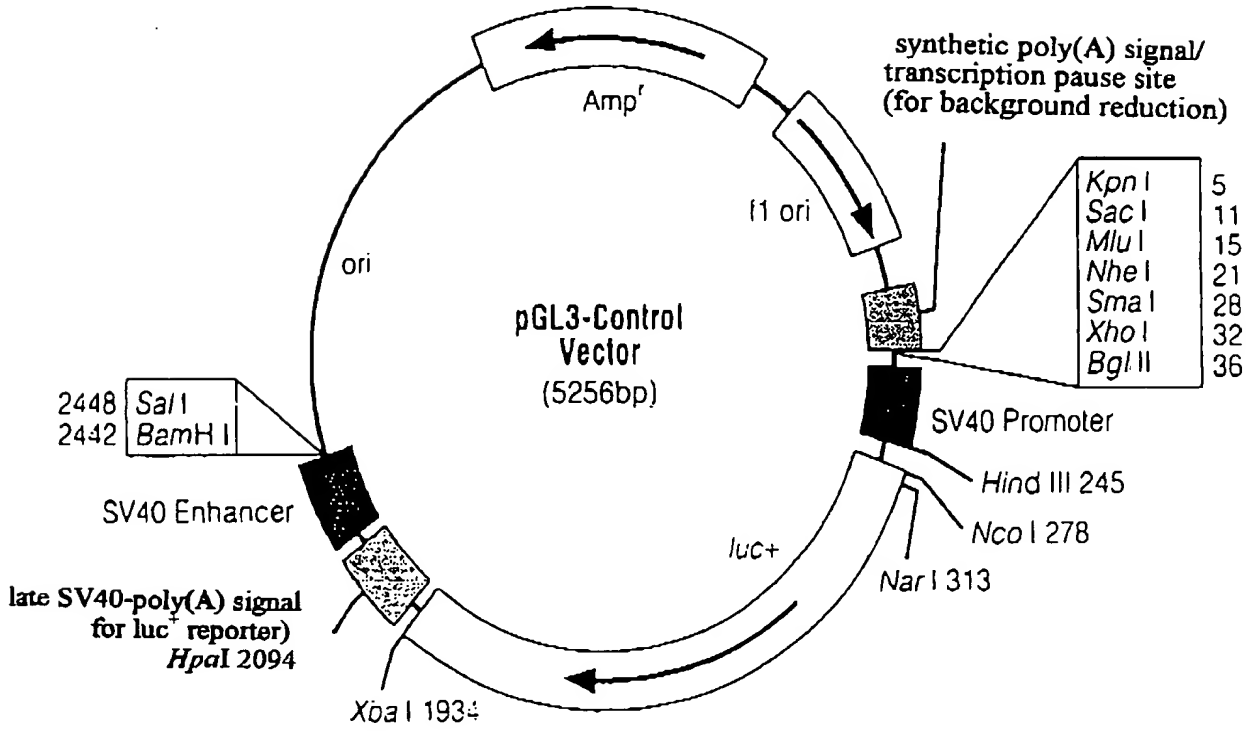
pGL3-Promoter Vector map.

Fig. 2 - part 2



pGL3-Enhancer Vector map.

Fig. 2 - part 3



pGL3-Control Vector map.

Fig. 2 - part 4

```
1 G G C A C C T T T T A C C T T A A C C A C A C T T T C A A G    X765551Ko.seq
1 G G C A C C T T T T A C C T T A A C C A C A C T T T C A A G    M2-3s.seq
1 G G C A C C T T [C] T A C C T T A A C C A C A C T T T C A A G  M7-1s.seq
1 G G C A C C T T [C] T A C C T T A A C C A C A C T T T C A A G  M8-2s.seq

31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C    X765551Ko.seq
31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C    M2-3s.seq
31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C    M7-1s.seq
31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C    M8-2s.seq

61 A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C    X765551Ko.seq
61 A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C    M2-3s.seq
61 A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C    M7-1s.seq
61 A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C    M8-2s.seq

91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G    X765551Ko.seq
91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G    M2-3s.seq
91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G    M7-1s.seq
91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G    M8-2s.seq

121 G A C G G G G A A G G G T A C A A T G T G G C C C A A T G T   X765551Ko.seq
121 G A C G G G G A A G G G T A C A A T G T G G C C C A A T G T   M2-3s.seq
121 G A C G G G G A A G G [A] T A C A A [C] G T G G C [A] C A A T G [C]  M7-1s.seq
121 G A C G G G G A A G G [A] T A C A A [C] G T G G C [A] C A A T G [C]  M8-2s.seq

151 A A C A T G A C C A A A G A C T G G T T C C T G G T T C A G   X765551Ko.seq
151 A A C A T G A C C A A A G A C T G G T T C C T G G T T C A G   M2-3s.seq
151 A A C A T G A C C A A A G A C T G G T T C C T [A] G T T C A G  M7-1s.seq
151 A A C A T G A C C A A A G A C T G G T T C C T [A] G T T C A G  M8-2s.seq
```

Fig. 3a(a) - part 1

```
181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   X765551Ko.seq
181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   .M2-3s.seq
181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   M7-1s.seq
181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   M8-2s.seq

211 G G C T T T T A C A T C C C T G A G G G A T A C A A G G A T   X765551Ko.seq
211 G G C T T T T A C A T C C C T G A G G G A T A C A A G G A T   M2-3s.seq
211 G G C T T T T A C A T C C C T G A G G G A T A C A A G G A T   M7-1s.seq
211 G G C T T T T A C A T C C C T G A G G G A T A C A A G G A T   M8-2s.seq

241 C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   X765551Ko.seq
241 C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   M2-3s.seq
241 C G C A T G T A C T C [T] T T T T T C A G A A A C T T C C A G   M7-1s.seq
241 C G C A T G T A C T C [T] T T T T T C A G A A A C T T C C A G   M8-2s.seq

271 C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   X765551Ko.seq
271 C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M2-3s.seq
271 C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M7-1s.seq
271 C C T A [C] G A G C A G G C A G G T G G T T G A T G A G G T T   M8-2s.seq

301 A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   X765551Ko.seq
301 A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M2-3s.seq
301 A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M7-1s.seq
301 A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M8-2s.seq

331 C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   X765551Ko.seq
331 C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M2-3s.seq
331 C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M7-1s.seq
331 C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M8-2s.seq
```

Fig. 3a(a) - part 2

```
361 G G G T A T C T T G C A C C T A C T A T G A G A C A A G G G   X765551Ko.seq
361 G G G T A T C T T G C A C C T A C T A T G A G A C A A G G G   M2-3s.seq
361 G G G T A C C T T G C A C C T A C T A T G A G A C A A G G G   M7-1s.seq
361 G G G T A C C T T G C A C C T A C T A T G A G A C A A G G G   M8-2s.seq

391 G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   X765551Ko.seq
391 G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M2-3s.seq
391 G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M7-1s.seq
391 G A A C C T T A C C C G G C C A A T T A T C C A T A C C C G   M8-2s.seq

421 C T C A T C G G A A                                         X765551Ko.seq
421 C T C A T C G G A A                                         M2-3s.seq
421 C T C A T C G G A A                                         M7-1s.seq
421 C T C A T C G G A A                                         M8-2s.seq
```

☐ sequence difference

Fig. 3a(a) - part 3

```
 1 G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   X765551Prot.PRO
 1 G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M2-3s.PRO
 1 G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M7-1s.PRO
 1 G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M8-2s.PRO

31 P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   X765551Prot.PRO
31 P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M2-3s.PRO
31 P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M7-1s.PRO
31 P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M8-2s.PRO

61 M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   X765551Prot.PRO
61 M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M2-3s.PRO
61 M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M7-1s.PRO
61 M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M8-2s.PRO

91 P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   X765551Prot.PRO
91 P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M2-3s.PRO
91 P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M7-1s.PRO
91 P [T] S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M8-2s.PRO

121 G Y L A P T M R Q G E P Y P A N Y P Y P L I G               X765551Prot.PRO
121 G Y L A P T M R Q G E P Y P A N Y P Y P L I G               M2-3s.PRO
121 G Y L A P T M R Q G E P Y P A N Y P Y P L I G               M7-1s.PRO
121 G Y L A P T M R Q G E P Y P A N Y P Y P L I G               M8-2s.PRO
```

☐ sequence difference

Fig. 3a(b)

```
1 G G C A C T T T T T A C C T T A A C C A C A C T T T C A A G   AF065068Ko.seq
1 G G C A C C T T T T A C C T T A A C C A C A C T T T C A A G   M6-1s.seq

31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   AF065068Ko.seq
31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M6-1s.seq

61 A G C T G G C C T G G C A A T G A C A G G C T G T T G T C T   AF065068Ko.seq
61 A G C T G G C C T G G C A A T G A C A G G C T G T T G T C T   M6-1s.seq

91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   AF065068Ko.seq
91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M6-1s.seq

121 G A T G G G G A A G G A T A C A A T G T G G C C C A A T G C   AF065068Ko.seq
121 G A T G G G G A A G G A T A C A A T G T G G C C C A A T G C   M6-1s.seq

151 A A C A T G A C C A A A G A C T G G T T C C T G G T T C A G   AF065068Ko.seq
151 A A C A T G A C C A A A G A C T G G T T C C T G G T T C A G   M6-1s.seq

181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   AF065068Ko.seq
181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   M6-1s.seq

211 G G C T T T T A C A T C C C T G A G G G A T A C A A G G A T   AF065068Ko.seq
211 G G C T T T T A C A T C C C T G A G G G A T A C A A G G A T   M6-1s.seq

241 C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   AF065068Ko.seq
241 C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   M6-1s.seq

271 C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   AF065068Ko.seq
271 C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M6-1s.seq

301 A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   AF065068Ko.seq
301 A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M6-1s.seq
```

Fig. 3b(a) - part 1

331 C C A T A T C A A C A C A A C A A C T C T G G C T T T G T A	AF065068Ko.seq
331 C C A T A T C A A C A C A A C A A C T C T G G C T T T G T A	M6-1s.seq
361 G G A T A C C T T G C G C C T A C T A T G A G A C A A G G G	AF065068Ko.seq
361 G G A T A C C T T G C G C C T A C T A T G A G A C A A G G G	M6-1s.seq
391 G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G	AF065068Ko.seq
391 G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G	M6-1s.seq
421 C T C A T C G G A A	AF065068Ko.seq
421 C T C A T C G G A A	M6-1s.seq

☐ sequence difference

Fig. 3b(a) - part 2

1	G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S	AF065068Prot.PRO
1	G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S	M6-1s.PRO
31	P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q	AF065068Prot.PRO
31	P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q	M6-1s.PRO
61	M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q	AF065068Prot.PRO
61	M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q	M6-1s.PRO
91	P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V	AF065068Prot.PRO
91	P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V	M6-1s.PRO
121	G Y L A P T M R Q G E P Y P A N Y P Y P L I G	AF065068Prot.PRO
121	G Y L A P T M R Q G E P Y P A N Y P Y P L I G	M6-1s.PRO

☐ sequence difference

Fig. 3b(b)

```
1 G G C A C C T T T T A C C T T A A C C A C A C T T T C A A G   AF065065Ko.seq
1 G G C A C C T T T T A C C T T A A C C A C A C T T T C A A G   M3.3P-2.SEQ
1 G G C A C C T T T T A C C T T A A C C A C A C T T T C A A G   M5-1s.seq
1 G G C A C C T T [C] T A C C T T A A C C A C A C T T T C A A G   M9-2s.seq

31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   AF065065Ko.seq
31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M3.3P-2.SEQ
31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M5-1s.seq
31 A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M9-2s.seq

61 A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C   AF065065Ko.seq
61 A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C   M3.3P-2.SEQ
61 A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C   M5-1s.seq
61 A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C   M9-2s.seq

91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   AF065065Ko.seq
91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M3.3P-2.SEQ
91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M5-1s.seq
91 C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M9-2s.seq

121 G A C G G G G A A G G G T A C A A T G T G G C C C A A T G T   AF065065Ko.seq
121 G A C G G G G A A G G G T A C A A T G T G G C C C A [N N] G T   M3.3P-2.SEQ
121 G A C G G G G A A G G G T A C A A T G T G G C C C A A T G T   M5-1s.seq
121 G A C G G G G A A G G [A] T A C A A [C] G T G G C [A] C A A [T] G C   M9-2s.seq

151 A A C A T G A C C A A A G A C T G G T T C C T G G T T C A G   AF065065Ko.seq
151 A A C A T G A C C A A A G A C T G G T T C C T G G T T C A G   M3.3P-2.SEQ
151 A A C A T G A C C A A A G A C T G G T T C C T G G T T C A G   M5-1s.seq
151 A A C A T G A C C A A A G A C T G G T T C C T [A] G T T C A G   M9-2s.seq
```

Fig. 3c(a) - part 1

```
181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   AF065065Ko.seq
181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   M3.3P-2.SEQ
181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   M5-1s.seq
181 A T G C T T G C C A A C T A C A A C A T T G G C T A C C A G   M9-2s.seq

211 G G C T T T T A C A T C C C T G A G G G A T A C A A G G A T   AF065065Ko.seq
211 G G C T T T T A C A T [N] C C T G A G G G A T A C A A G G A T   M3.3P-2.SEQ
211 G G C T T T T A C A T C C C T G A G G G A T A C A A G G A T   M5-1s.seq
211 G G C T T T T A C A T C C C T G A G G G A T A C A A G G A T   M9-2s.seq

241 C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   AF065065Ko.seq
241 C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   M3.3P-2.SEQ
241 C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   M5-1s.seq
241 C G C A T G T A C T C [T] T T T T T C A G A A A C T T C C A G   M9-2s.seq

271 C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   AF065065Ko.seq
271 C C T A T G A G C A G G C A G G T G G [C] T G A T G A G G [N] T   M3.3P-2.SEQ
271 C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M5-1s.seq
271 C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M9-2s.seq

301 A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   AF065065Ko.seq
301 A A T T A C A C T G A C T A C A A A G C C G [G] C A C C T T A   M3.3P-2.SEQ
301 A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M5-1s.seq
301 A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M9-2s.seq

331 C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   AF065065Ko.seq
331 C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M3.3P-2.SEQ
331 C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M5-1s.seq
331 C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M9-2s.seq
```

Fig. 3c(a) - part 2

```
361 G G G T A T C T T G C A C C T A C T A T G A G A C A A G G G   AF065065Ko.seq
361 G G G T A T C T T G C A C C T A C T A T G A G A C A A G G G   M3.3P-2.SEQ
361 G G G T A T C T T G C A C C T A C T A T G A G A C A A G G G   M5-1s.seq
361 G G G T A C C T T G C A C C T A C T A T G A G A C A A G G G   M9-2s.seq

391 G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   AF065065Ko.seq
391 G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M3.3P-2.SEQ
391 G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M5-1s.seq
391 G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M9-2s.seq

421 C T C A T C G G A A                                         AF065065Ko.seq
421 C T C A T C G G A A                                         M3.3P-2.SEQ
421 C T C A T C G G A A                                         M5-1s.seq
421 C T C A T C G G A A                                         M9-2s.seq
```

☐ sequence difference

Fig. 3c(a) - part 3

```
 1 G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   AF065065.pro
 1 G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M3-3p.pro
 1 G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M5-1s.PRO
 1 G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M9-2s.PRO

31 P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   AF065065.pro
31 P N E F E I K R T V D G E G Y N V A [X X] N M T K D W F L V Q   M3-3p.pro
31 P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M5-1s.PRO
31 P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M9-2s.PRO

61 M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   AF065065.pro
61 M L A N Y N I G Y Q G F Y [X] P E G Y K D R M Y S F F R N F Q   M3-3p.pro
61 M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M5-1s.PRO
61 M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M9-2s.PRO

91 P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   AF065065.pro
91 P M S R Q V [A] D E [X] N Y T D Y K A [G] T L P Y Q H N N S G F V   M3-3p.pro
91 P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M5-1s.PRO
91 P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M9-2s.PRO

121 G Y L A P T M R Q G E P Y P A N Y P Y P L I G   AF065065.pro
121 G Y L A P T M R Q G E P Y P A N Y P Y P L I G   M3-3p.pro
121 G Y L A P T M R Q G E P Y P A N Y P Y P L I G   M5-1s.PRO
121 G Y L A P T M R Q G E P Y P A N Y P Y P L I G   M9-2s.PRO
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☐ sequence difference

Fig. 3c(b)

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1.  G G C A C C T T T T A C C T T A A C C A C A C T T T C A A G   M2-3s.seq
1.  G G C A C C T T T T A C C T T A A C C A C A C T T T C A A G   M5-1s.seq
1.  G G C A C C T T T T A C C T T A A C C A C A C T T T C A A G   M6-1s.seq
1.  G G C A C C T T T C T A C C T T A A C C A C A C T T T C A A G   M7-1s.seq
1.  G G C A C C T T T C T A C C T T A A C C A C A C T T T C A A G   M8-2s.seq
1.  G G C A C C T T T C T A C C T T A A C C A C A C T T T C A A G   M9-2s.seq

31. A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M2-3s.seq
31. A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M5-1s.seq
31. A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M6-1s.seq
31. A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M7-1s.seq
31. A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M8-2s.seq
31. A A G G T C T C C A T C A T G T T T G A C T C C T C A G T C   M9-2s.seq

61. A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C   M2-3s.seq
61. A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C   M5-1s.seq
61. A G C T G G C C T G G C A A T G A C A G G C T G T T G T C T   M6-1s.seq
61. A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C   M7-1s.seq
61. A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C   M8-2s.seq
61. A G C T G G C C T G G C A A T G A C A G G C T G T T G A G C   M9-2s.seq

91. C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M2-3s.seq
91. C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M5-1s.seq
91. C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M6-1s.seq
91. C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M7-1s.seq
91. C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M8-2s.seq
91. C C A A A T G A G T T T G A A A T C A A G C G C A C T G T G   M9-2s.seq
```

Fig. 4a - part 1

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121. GACGGGGAAGGGTACAATGTGGCCCAATGT   M2-3s.seq
121. GACGGGGAAGGGTACAATGTGGCCCAATGT   M5-1s.seq
121. GATGGGGAAGGATACAATGTGGCCCAATGC   M6-1s.seq
121. GACGGGGAAGGATACAACGTGGCACAATGC   M7-1s.seq
121. GACGGGGAAGGATACAACGTGGCACAATGC   M8-2s.seq
121. GACGGGGAAGGATACAACGTGGCACAATGC   M9-2s.seq

151  AACATGACCAAAGACTGGTTCCTGGTTCAG   M2-3s.seq
151  AACATGACCAAAGACTGGTTCCTGGTTCAG   M5-1s.seq
151  AACATGACCAAAGACTGGTTCCTGGTTCAG   M6-1s.seq
151  AACATGACCAAAGACTGGTTCCTAGTTCAG   M7-1s.seq
151  AACATGACCAAAGACTGGTTCCTAGTTCAG   M8-2s.seq
151  AACATGACCAAAGACTGGTTCCTAGTTCAG   M9-2s.seq

181  ATGCTTGCCAACTACAACATTGGCTACCAG   M2-3s.seq
181  ATGCTTGCCAACTACAACATTGGCTACCAG   M5-1s.seq
181  ATGCTTGCCAACTACAACATTGGCTACCAG   M6-1s.seq
181  ATGCTTGCCAACTACAACATTGGCTACCAG   M7-1s.seq
181  ATGCTTGCCAACTACAACATTGGCTACCAG   M8-2s.seq
181  ATGCTTGCCAACTACAACATTGGCTACCAG   M9-2s.seq

211  GGCTTTTACATCCCTGAGGGATACAAGGAT   M2-3s.seq
211  GGCTTTTACATCCCTGAGGGATACAAGGAT   M5-1s.seq
211  GGCTTTTACATCCCTGAGGGATACAAGGAT   M6-1s.seq
211  GGCTTTTACATCCCTGAGGGATACAAGGAT   M7-1s.seq
211  GGCTTTTACATCCCTGAGGGATACAAGGAT   M8-2s.seq
211  GGCTTTTACATCCCTGAGGGATACAAGGAT   M9-2s.seq
```

Fig. 4a - part 2

```
241  C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   M2-3s.seq
241  C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   M5-1s.seq
241  C G C A T G T A C T C C T T T T T C A G A A A C T T C C A G   M6-1s.seq
241  C G C A T G T A C T C T T T T T T C A G A A A C T T C C A G   M7-1s.seq
241  C G C A T G T A C T C T T T T T T C A G A A A C T T C C A G   M8-2s.seq
241  C G C A T G T A C T C T T T T T T C A G A A A C T T C C A G   M9-2s.seq

271  C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M2-3s.seq
271  C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M5-1s.seq
271  C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M6-1s.seq
271  C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M7-1s.seq
271  C C T A C G A G C A G G C A G G T G G T T G A T G A G G T T   M8-2s.seq
271  C C T A T G A G C A G G C A G G T G G T T G A T G A G G T T   M9-2s.seq

301  A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M2-3s.seq
301  A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M5-1s.seq
301  A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M6-1s.seq
301  A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M7-1s.seq
301  A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M8-2s.seq
301  A A T T A C A C T G A C T A C A A A G C C G T C A C C T T A   M9-2s.seq

331  C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M2-3s.seq
331  C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M5-1s.seq
331  C C A T A T C A A C A C A A C A A C T C T G G C T T T G T A   M6-1s.seq
331  C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M7-1s.seq
331  C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M8-2s.seq
331  C C A T A C C A A C A C A A C A A C T C T G G C T T T G T A   M9-2s.seq
```

Fig. 4a - part 3

```
361  G G G T A T C T T G C A C C T A C T A T G A G A C A A G G G   M2-3s.seq
361  G G G T A T C T T G C A C C T A C T A T G A G A C A A G G G   M5-1s.seq
361  G G A T A C C T T G C C C T A C T A T G A G A C A A G G G   M6-1s.seq
361  G G G T A C C T T G C A C C T A C T A T G A G A C A A G G G   M7-1s.seq
361  G G G T A C C T T G C A C C T A C T A T G A G A C A A G G G   M8-2s.seq
361  G G G T A C C T T G C A C C T A C T A T G A G A C A A G G G   M9-2s.seq

391  G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M2-3s.seq
391  G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M5-1s.seq
391  G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M6-1s.seq
391  G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M7-1s.seq
391  G A A C C T T A C C C C G G C C A A T T A T C C A T A C C C G   M8-2s.seq
391  G A A C C T T A C C C A G C C A A T T A T C C A T A C C C G   M9-2s.seq

421  C T C A T C G G A A                                       M2-3s.seq
421  C T C A T C G G A A                                       M5-1s.seq
421  C T C A T C G G A A                                       M6-1s.seq
421  C T C A T C G G A A                                       M7-1s.seq
421  C T C A T C G G A A                                       M8-2s.seq
421  C T C A T C G G A A                                       M9-2s.seq
```

▭ sequence difference

Fig. 4a - part 4

```
 1  G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M2-3s.PRO
 1  G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M5-1s.PRO
 1  G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M6-1s.PRO
 1  G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M7-1s.PRO
 1  G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M8-2s.PRO
 1  G T F Y L N H T F K K V S I M F D S S V S W P G N D R L L S   M9-2s.PRO

31  P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M2-3s.PRO
31  P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M5-1s.PRO
31  P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M6-1s.PRO
31  P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M7-1s.PRO
31  P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M8-2s.PRO
31  P N E F E I K R T V D G E G Y N V A Q C N M T K D W F L V Q   M9-2s.PRO

61  M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M2-3s.PRO
61  M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M5-1s.PRO
61  M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M6-1s.PRO
61  M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M7-1s.PRO
61  M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M8-2s.PRO
61  M L A N Y N I G Y Q G F Y I P E G Y K D R M Y S F F R N F Q   M9-2s.PRO

91  P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M2-3s.PRO
91  P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M5-1s.PRO
91  P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M6-1s.PRO
91  P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M7-1s.PRO
91  P [T] S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M8-2s.PRO
91  P M S R Q V V D E V N Y T D Y K A V T L P Y Q H N N S G F V   M9-2s.PRO
```

Fig. 4b - part 1

121	G Y L A P T M R Q G E P Y P A N Y P Y P L I G	M2-3s.PRO
121	G Y L A P T M R Q G E P Y P A N Y P Y P L I G	M5-1s.PRO
121	G Y L A P T M R Q G E P Y P A N Y P Y P L I G	M6-1s.PRO
121	G Y L A P T M R Q G E P Y P A N Y P Y P L I G	M7-1s.PRO
121	G Y L A P T M R Q G E P Y P A N Y P Y P L I G	M8-2s.PRO
121	G Y L A P T M R Q G E P Y P A N Y P Y P L I G	M9-2s.PRO

☐ sequence difference

Fig. 4b - part 2

ADE1Bgl2S

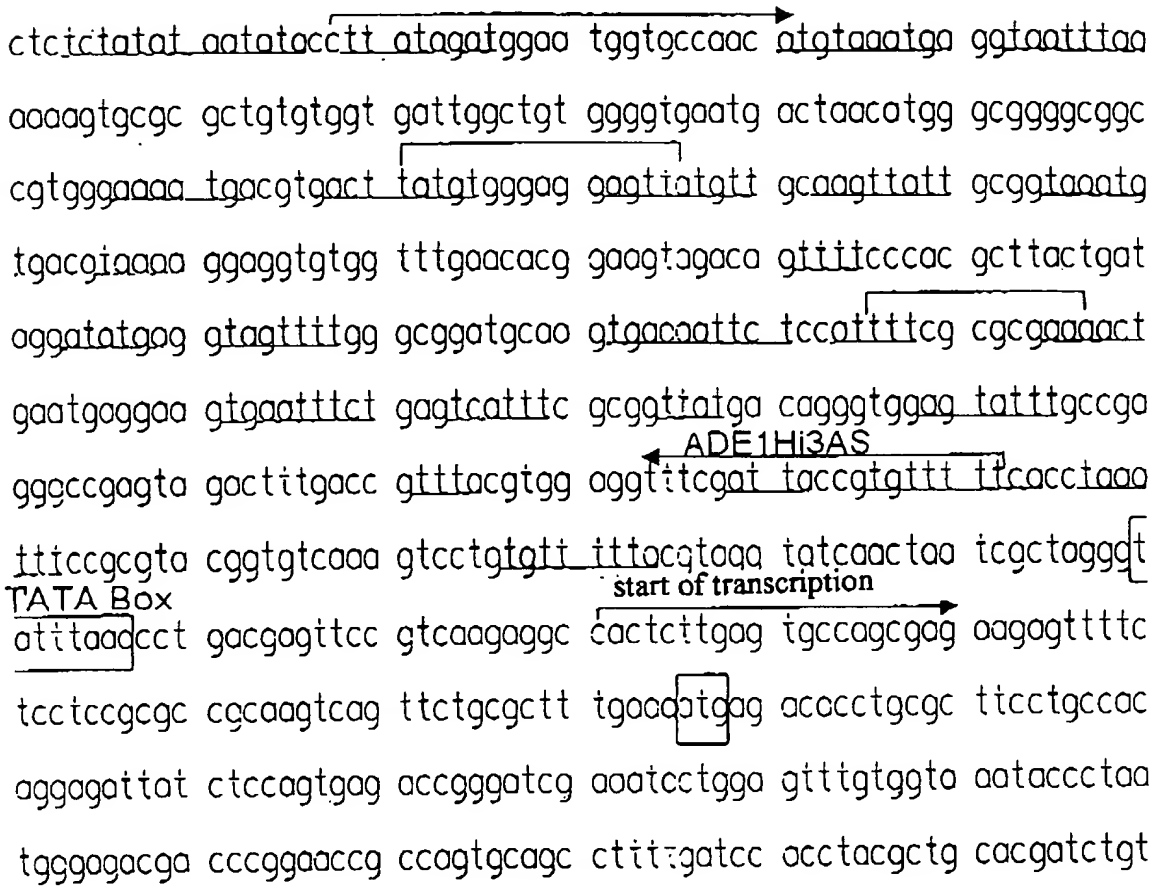

Fig. 5

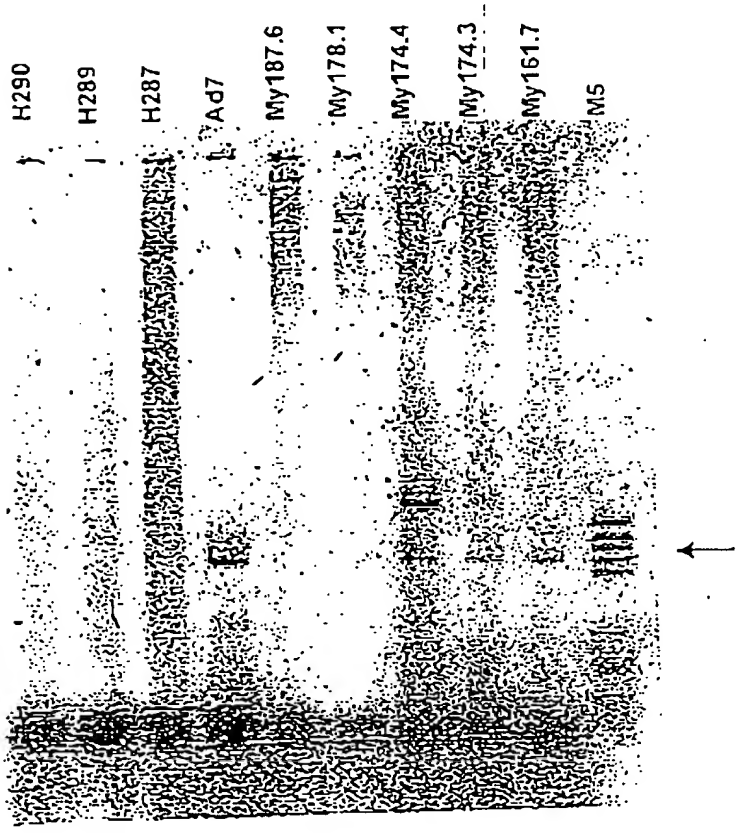

Fig. 6

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